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ART UNIT	PAPER NUMBER
2154	

DATE MAILED: 03/14/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/642,475	BOYLAN ET AL.	
	Examiner	Art Unit	
	Ashok B. Patel	2154	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *15 August 2003*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-43* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-43* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Application Number 10/642, 475 was filed on 08/15/2003. Claims 1-43 are subject to examination.

Specification

2. The abstract of the disclosure is objected to because undue length. Correction is required. See MPEP § 608.01(b).

Applicant is reminded of the proper language and format for an abstract of the disclosure.

The abstract should be in narrative form and generally limited to a single paragraph on a separate sheet within the range of 50 to 150 words. It is important that the abstract not exceed 150 words in length since the space provided for the abstract on the computer tape used by the printer is limited. The form and legal phraseology often used in patent claims, such as "means" and "said," should be avoided. The abstract should describe the disclosure sufficiently to assist readers in deciding whether there is a need for consulting the full patent text for details.

The language should be clear and concise and should not repeat information given in the title. It should avoid using phrases which can be implied, such as, "The disclosure concerns," "The disclosure defined by this invention," "The disclosure describes," etc.

3. The disclosure is objected to because of the following informalities:

The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed. “METHODS, COMPUTER

SYSTEMS, AND COMPUTER READABLE MEDIA FOR GENERATING DISPLAYS OF SET OF NETWORKING ADDRESSES WITH THEIR RESPECTIVE STATUS INDICATORS". Appropriate correction is required.

4. Claim 43 seem to be dependent upon claim 42, rather it indicates to be dependent upon claim 40. Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 2 and 23 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Where applicant acts as his or her own lexicographer to specifically define a term of a claim contrary to its ordinary meaning, the written description must clearly redefine the claim term and set forth the uncommon definition so as to put one reasonably skilled in the art on notice that the applicant intended to so redefine that claim term. *Process Control Corp. v. HydReclaim Corp.*, 190 F.3d 1350, 1357, 52 USPQ2d 1029, 1033 (Fed. Cir. 1999). The terms "an origin" and "mask size" in claims 2 and 23 are used by the claim to mean "defining the set of addresses", while the accepted meaning is "the point at which something comes into existence or from which it derives or is derived", that is the source of coming into an existence, and mask is "A binary value used to selectively screen out or let through certain bits in a data value." and size "relative amount or

number." respectively. These terms are indefinite because the specification does not clearly redefine the term.

For the purpose of this office action, origin is interpreted as "address source point" from where the set of the addresses begin as a string" and mask size is that is left for the system to screen out based on the "quad" entered in the address value.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

7. Claims 1-36, 42 and 43 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wilkes (US 2004/0070632 A1) in view of Johnson et al. (hereinafter Johnson)(US 6, 404, 444 B1).

Referring to claim 1,

The reference Wilkes teaches at page 4, para. [0047], FIGS. 4A-4D depict example screens of display illustrating visual representations of an address space in accordance with a preferred embodiment of the present invention. FIG. 4A illustrates window 400 displaying address space disk 402, which represents an entire IP address space. More particularly, FIG. 4A may represent a subset of the IP address space, such as the addresses used by a particular enterprise or the address space filtered by a

given criteria. In the depicted example, address space disk 402 may depict the addresses used by an enterprise and particular addresses meeting a given criteria. For example, the following addresses are highlighted: 32.--.--.--, 52.--.--.--, 64.--.--.--, 144.--.--.--, 146.--.--.--, 192.--.--.--, and 201.--.--.--. These addresses may include nodes that are running a specified operating system. (rendering a display of a set of the networking addresses and accessing definitional information of a set of the networking addresses).

The reference fails to teach rendering a display wherein the display provides a first visual indicator having a first value of a first attribute and a second visual indicator having a second value of the first attribute, and the definitional information defining one or more attributes.

The reference Johnson teaches in Fig. 3 and col. 5, lines 7-17," In the depicted example, GUI 300, is a display of a stack of cylinders, including cylinders 302-312. Each cylinder in GUI 300, represents an apportionment of that resource with the height or volume of the cylinder representing the amount of the resource. Sections 302a-310a indicate the used or consumed portions of each cylinder while sections 302b-310b illustrate the unused or unconsumed portions of the apportionment. Cylinder 312 indicates the unallocated portions of the resource. As a result, the division of the cylinders represents the amount of resources currently consumed and unconsumed." (rendering a display wherein the display provides a first visual indicator for networking addresses having a first value of a first attribute ("allocated"), wherein a second visual indicator having a second value of the first attribute, and accessing definitional information, the definitional information defining one or more attributes). Additionally,

the reference also teaches in col. 4, line 34-37, "The mechanism provides an interface in which a single intuitive control can be simultaneously used for displaying status information about the resource and for modifying allocations and apportionments in the resource." The reference also teaches in col. 7, lines 17-20 and Figs 6A and 6B, "An alternative form, is for example, without limitation, a series of stacked boxes, square in cross-section, rather than cylinders. The boxes could be subdivided vertically to show the consumed/unconsumed portions of each. However, there is really no need for the representation to appear as if it were three dimensional. Two dimensional rectangles would work just as well, with the area of the rectangle representing the total resource. Also note that the division of each cylinder into only two areas (consumed, unconsumed) in the example could be generalized into a greater number of subdivisions. For example, using the logical disk storage example, the divisions might be "consumed", "unconsumed", and "reserved". (Note: These teaching are applied concepts and are of paramount importance for one having ordinary skill in the art.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of

Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by the system as taught by Johnson.

Referring to claim 2,

Keeping in mind the teachings of the reference Wilkes as stated above, The reference Wilkes teaches the computer-implemented method of claim 1, further comprising: determining an origin and mask size of the set of the networking addresses to be displayed (Figs 4A through 4D).

The reference fails to teach to set the boundary of the display.

The reference Johnson teaches in Fig. 3 and col. 5, lines 7-17," In the depicted example, GUI 300, is a display of a stack of cylinders, including cylinders 302-312. Each cylinder in GUI 300, represents an apportionment of that resource with the height or volume of the cylinder representing the amount of the resource. Sections 302a-310a indicate the used or consumed portions of each cylinder while sections 302b-310b illustrate the unused or unconsumed portions of the apportionment. Cylinder 312 indicates the unallocated portions of the resource. As a result, the division of the cylinders represents the amount of resources currently consumed and unconsumed." (Thus the reference teaches to set the boundary of the display.) (Note: These teaching are applied concepts and are of paramount importance for one having ordinary skill in the art.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but,

also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed by setting the boundaries within the address space.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by the system as taught by Johnson.

Referring to claims 3 and 4,

The reference Wilkes teaches computer-implemented method of claim 1, wherein determining an origin and mask size of the set comprises receiving a user selection to zoom out of a current displayed set of the networking addresses to display a set containing a larger number of addresses, and computer-implemented method of claim 1, wherein determining an origin and mask size of the set comprises receiving a user selection to zoom in on a current displayed set of the networking addresses. (page 4, para. [0052])

Referring to claim 5,

Keeping in mind the teachings of the reference Wilkes as stated above in claim 1 represent a block of networking addresses, the reference fails to teach wherein rendering the display comprises rendering a grid space, and wherein at least one rectangle is rendered within the grid space to represent a block with at least one rectangle being provided with the first visual indicator.

The reference Johnson teaches in col. 7, lines 17-20 and Figs 6A and 6B, "An alternative form, is for example, without limitation, a series of stacked boxes, square in

cross-section, rather than cylinders. The boxes could be subdivided vertically to show the consumed/unconsumed portions of each (wherein rendering the display comprises rendering a grid space, and wherein at least one rectangle is rendered within the grid space to represent a block with the at least one rectangle being provided with the first visual indicator.) However, there is really no need for the representation to appear as if it were three dimensional. Two dimensional rectangles would work just as well, with the area of the rectangle representing the total resource. Also note that the division of each cylinder into only two areas (consumed, unconsumed) in the example could be generalized into a greater number of subdivisions. For example, using the logical disk storage example, the divisions might be "consumed", "unconsumed", and "reserved". (Note: These teaching are applied concepts and are of paramount importance for one having ordinary skill in the art.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by the system as taught by Johnson.

Referring to claims 6 and 7,

Keeping in mind the teachings of the reference Wilkes as stated above in claim 1, the reference fails to teach the computer-implemented method of claim 5, wherein a second rectangle is rendered within the grid space to represent a second block with the second rectangle being provided with the first visual indicator, and the computer-implemented method of claim 5, wherein a second rectangle is rendered within the grid space to represent a second block with the second rectangle being provided with the second visual indicator.

The reference Johnson teaches in col. 7, lines 17-20 and Figs 6A and 6B, "An alternative form, is for example, without limitation, a series of stacked boxes, square in cross-section, rather than cylinders. The boxes could be subdivided vertically to show the consumed/unconsumed portions of each. However, there is really no need for the representation to appear as if it were three dimensional. Two dimensional rectangles would work just as well, with the area of the rectangle representing the total resource. Also note that the division of each cylinder into only two areas (consumed, unconsumed) in the example could be generalized into a greater number of subdivisions. For example, using the logical disk storage example, the divisions might be "consumed", "unconsumed", and "reserved". (the computer-implemented method of claim 5, wherein a second rectangle is rendered within the grid space to represent a second block with the second rectangle being provided with the first visual indicator, and the computer-implemented method of claim 5, wherein a second rectangle is rendered within the grid space to represent a second block with the second rectangle

being provided with the second visual indicator.) (Note: These teaching are applied concepts and are of paramount importance for one having ordinary skill in the art.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by the system as taught by Johnson.

Referring to claims 8, 9, 10, 11, 12 and 13,

Keeping in mind the teachings of the reference Wilkes as stated above in claim 1, the reference fails to teach the computer implemented method of claim 5, wherein the at least one rectangle is provided with the second visual indicator in addition to the first visual indicator, and the computer-implemented method of claim 5, wherein the area of each of the blocks is representative within the blocks, and the computer-implemented method of claim 1, wherein the first visual indicator is a first color and wherein the second visual indicator is a second color, and the computer-implemented method of claim 1, wherein the first attribute is status, and the computer-implemented method of claim 11, wherein the first visual indicator indicates an allocated status and the second visual indicator indicates a free status, and computer-implemented method of claim 12,

wherein rendering a display further comprises providing a third visual indicator for the first value and wherein the third visual indicator indicates a reclaimed status.

The reference Johnson teaches the computer implemented method of claim 5, wherein the at least one rectangle is provided with the second visual indicator in addition to the first visual indicator (Figs. 6A and 6B), and the computer-implemented method of claim 5, wherein the area of each of the blocks is representative within the blocks (Figs. 6A and 6B), and the computer-implemented method of claim 1, wherein the first visual indicator is a first color and wherein the second visual indicator is a second color (col. 5, lines 20-42), and the computer-implemented method of claim 1, wherein the first attribute is status (Fig. 5, “allocated”) , and the computer-implemented method of claim 11, wherein the first visual indicator indicates an allocated status and the second visual indicator indicates a free status and computer-implemented method of claim 12, wherein rendering a display further comprises providing a third visual indicator for the first value and wherein the third visual indicator indicates a reclaimed status. (col. 7, lines 17-44).

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of

Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by the system as taught by Johnson.

Referring to claim 14,

Keeping in mind the teachings of the reference Wilkes as stated above in claim 1, the reference fails to teach the computer-implemented method of claim 1, wherein rendering the display comprises rendering a first shape representative of having a status attribute that is defined as free and rendering a second shape representative of having the status attribute that is defined as allocated, and wherein the relative areas of the first and second shapes are representative of the size of the range of networking addresses represented by the first and second shapes.

The reference Johnson teaches these limitations in Figs 4A-4C and 5A-5C.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by the system as taught by Johnson.

Referring to claim 15,

Keeping in mind the teachings of the reference Wilkes as stated above in claim 1, the reference fails to teach the computer-implemented method of claim 14, wherein the first and second shapes are pie wedges included within a displayed pie chart. The reference Johnson teaches these limitations in Figs 4A-4C and 5A-5C.

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by a data processing system as taught by Johnson.

Referring to claim 16,

Keeping in mind the teachings of the reference Wilkes as stated above, the reference also teaches The reference Wilkes teaches at page 4, para.[0047], FIGS. 4A-4D depict example screens of display illustrating visual representations of an address space in accordance with a preferred embodiment of the present invention. FIG. 4A illustrates window 400 displaying address space disk 402, which represents an entire IP address space. More particularly, FIG. 4A may represent a subset of the IP address space, such as the addresses used by a particular enterprise or the address space filtered by a given criteria. In the depicted example, address space disk 402 may depict

the addresses used by an enterprise and particular addresses meeting a given criteria. For example, the following addresses are highlighted: 32.--.--.--, 52.--.--.--, 64.--.--.--, 144.--.--.--, 146.--.--.--, 192.--.--.--, and 201.--.--.--. These addresses may include nodes that are running a specified operating system. (rendering a display of a set of the networking addresses and accessing definitional information of a set of the networking addresses, accessing the definitional information defining one or more attributes for the networking addresses of the set;)(the parent network and subordinate networks for which the networking addresses are assigned).

The reference fails to teach the first attribute , the first value and the second value.

The reference Johnson teaches in Fig. 3 and col. 5, lines 7-17," In the depicted example, GUI 300, is a display of a stack of cylinders, including cylinders 302-312. Each cylinder in GUI 300, represents an apportionment of that resource with the height or volume of the cylinder representing the amount of the resource. Sections 302a-310a indicate the used or consumed portions of each cylinder while sections 302b-310b illustrate the unused or unconsumed portions of the apportionment. Cylinder 312 indicates the unallocated portions of the resource. As a result, the division of the cylinders represents the amount of resources currently consumed and unconsumed." (rendering a display wherein the display provides a first visual indicator for networking addresses having a first value of a first attribute ("allocated"), wherein a second visual indicator having a second value of the first attribute, and accessing definitional information, the definitional information defining one or more attributes). Additionally,

the reference also teaches in col. 4, line 34-37, "The mechanism provides an interface in which a single intuitive control can be simultaneously used for displaying status information about the resource and for modifying allocations and apportionments in the resource." The reference also teaches in col. 7, lines 17-20 and Figs 6A and 6B, "An alternative form, is for example, without limitation, a series of stacked boxes, square in cross-section, rather than cylinders. The boxes could be subdivided vertically to show the consumed/unconsumed portions of each. However, there is really no need for the representation to appear as if it were three dimensional. Two dimensional rectangles would work just as well, with the area of the rectangle representing the total resource. Also note that the division of each cylinder into only two areas (consumed, unconsumed) in the example could be generalized into a greater number of subdivisions. For example, using the logical disk storage example, the divisions might be "consumed", "unconsumed" (the first value and the second value) , and "reserved". (Note: These teaching are applied concepts and are of paramount importance for one having ordinary skill in the art.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of

Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by a data processing system as taught by Johnson.

Referring to claim 17, 18 and 19,

Keeping in mine the teachings of the reference Wilkes as stated above, the reference fails to teach wherein rendering the display comprises displaying individual blocks that are adjacent and span grid spaces of a map that are individually selectable, and computer-implemented method of claim 17, wherein displaying individual blocks that span grid spaces that are individually selectable comprises displaying a value when a cursor is placed over the individual grid space. and computer-implemented method of claim 17, wherein grid spaces comprise individual networking addresses.

The reference Johnson teaches in Fig. 3 and col. 5, lines 7-17," In the depicted example, GUI 300, is a display of a stack of cylinders, including cylinders 302-312. Each cylinder in GUI 300, represents an apportionment of that resource with the height or volume of the cylinder representing the amount of the resource. Sections 302a-310a indicate the used or consumed portions of each cylinder while sections 302b-310b illustrate the unused or unconsumed portions of the apportionment. Cylinder 312 indicates the unallocated portions of the resource. As a result, the division of the cylinders represents the amount of resources currently consumed and unconsumed." Additionally, the reference also teaches in col. 4, line 34-37, "The mechanism provides an interface in which a single intuitive control can be simultaneously used for displaying status information about the resource and for modifying allocations and apportionments in the resource." The reference also teaches in col. 7, lines 17-20 and Figs 6A and 6B,

"An alternative form, is for example, without limitation, a series of stacked boxes, square in cross-section, rather than cylinders. The boxes could be subdivided vertically to show the consumed/unconsumed portions of each. However, there is really no need for the representation to appear as if it were three dimensional. Two dimensional rectangles would work just as well, with the area of the rectangle representing the total resource. Also note that the division of each cylinder into only two areas (consumed, unconsumed) in the example could be generalized into a greater number of subdivisions. For example, using the logical disk storage example, the divisions might be "consumed", "unconsumed", and "reserved". "Hot spots for adjusting the allocations also may be provided for the boxes. For example, in FIG. 6A, hot spot 610 is a vertical line dividing consumed and unconsumed portions of box 604 while in FIG. 6B, hot spot 612 is a horizontal line at the top of box 604.", col. 7, lines 40-44). (wherein rendering the display comprises displaying individual blocks that are adjacent and span grid spaces of a map that are individually selectable, and computer-implemented method of claim 17, wherein displaying individual blocks that span grid spaces that are individually selectable comprises displaying a value when a cursor is placed over the individual grid space – well known in the art) (Note: These teaching are applied concepts and are of paramount importance for one having ordinary skill in the art.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but,

also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by a data processing system as taught by Johnson.

Referring to claims 20 and 21,

The reference Wilkes teaches the computer-implemented method of claim 1, wherein the networking address space is layer three of the communications protocol stack, and computer-implemented method of claim 1, wherein networking address space is layer four of the communications protocol stack. (Fig. 3, page 3, para.[0041]-[0044])

Referring to claim 22,

Claim 22 is a claim to a computer system for illustrating networking addresses in accordance with claim 1. Therefore, claim 22 is rejected for the reasons set forth for claim 1.

Referring to claim 23,

Claim 23 is a claim to a computer system for illustrating networking addresses in accordance with claim 2. Therefore, claim 23 is rejected for the reasons set forth for claim 2.

Referring to claim 24,

Claim 24 is a claim to a computer system for illustrating networking addresses in accordance with claims 5, 6 and 7. Therefore, claim 24 is rejected for the reasons set forth for claims 5, 6 and 7.

Referring to claim 25,

Claim 25 is a claim to a computer system for illustrating networking addresses in accordance with claims 8, 9, 10, 11, 12 and 13. Therefore, claim 25 is rejected for the reasons set forth for claims 8, 9, 10, 11, 12 and 13.

Referring to claim 26,

Claim 26 is a claim to a computer system for illustrating networking addresses in accordance with claims 8, 9, 10, 11, 12 and 13. Therefore, claim 26 is rejected for the reasons set forth for claims 8, 9, 10, 11, 12 and 13.

Referring to claim 27,

Claim 27 is a claim to a computer system for illustrating networking addresses in accordance with claims 8, 9, 10, 11, 12 and 13. Therefore, claim 27 is rejected for the reasons set forth for claims 8, 9, 10, 11, 12 and 13.

Referring to claim 28,

Claim 28 is a claim to a computer system for illustrating networking addresses in accordance with claims 8, 9, 10, 11, 12 and 13. Therefore, claim 28 is rejected for the reasons set forth for claims 8, 9, 10, 11, 12 and 13.

Referring to claim 29,

Claim 29 is a claim to a computer system for illustrating networking addresses in accordance with claims 8, 9, 10, 11, 12 and 13. Therefore, claim 29 is rejected for the reasons set forth for claims 8, 9, 10, 11, 12 and 13.

Referring to claim 30,

Claim 30 is a claim to a computer system for illustrating networking addresses in accordance with claim 14 . Therefore, claim 30 is rejected for the reasons set forth for claim 14 .

Referring to claim 31,

Claim 31 is a claim to a computer system for illustrating networking addresses in accordance with claim 15 . Therefore, claim 31 is rejected for the reasons set forth for claim 15.

Referring to claim 32,

Claim 32 is a claim to a computer system for illustrating networking addresses in accordance with claim 16 . Therefore, claim 32 is rejected for the reasons set forth for claim 16.

Referring to claim 33,

Claim 33 is a claim to a computer system for illustrating networking addresses in accordance with claims 20 and 21. Therefore, claim 33 is rejected for the reasons set forth for claims 20 and 21.

Referring to claims 34 and 35

Claims 34 and 35 are claims to a computer readable medium containing instructions that when performed by a computer perform the steps of method of claim 1. Therefore, claim 34 is rejected for the reasons set forth for claim 1.

Referring to claim 36,

Claim 36 is a claim to computer readable medium containing instructions that when performed by a computer perform the steps of method of claims 5, 6 and 7. Therefore, claim 36 is rejected for the reasons set forth for claims 5, 6 and 7.

Referring to claim 42,

The reference Wilkes teaches at page 4, para.[0047], FIGS. 4A-4D depict example screens of display illustrating visual representations of an address space in accordance with a preferred embodiment of the present invention. FIG. 4A illustrates window 400 displaying address space disk 402, which represents an entire IP address space. More particularly, FIG. 4A may represent a subset of the IP address space, such as the addresses used by a particular enterprise or the address space filtered by a given criteria. In the depicted example, address space disk 402 may depict the addresses used by an enterprise and particular addresses meeting a given criteria. For example, the following addresses are highlighted: 32.--.--.--, 52.--.--.--, 64.--.--.--, 144.--.--.--, 146.--.--.--, 192.--.--.--, and 201.--.--.--. These addresses may include nodes that are running a specified operating system. (displaying the arrangement of the networking addresses and definitional information);

The reference fails to teach rendering constructing a multi-dimensional arrangement of a linear index in which each position in the arrangement corresponds to

a specific value or group of values of the index, and wherein the data set includes definitional information defining one or more attributes, displaying the arrangement such that at each position in the arrangement, a first visual indicator is provided for having a first value for the first attribute and a second visual indicator is provided for having a second value for the first attribute.

The reference Johnson teaches in Fig. 3 and col. 5, lines 7-17," In the depicted example, GUI 300, is a display of a stack of cylinders, including cylinders 302-312. Each cylinder in GUI 300, represents an apportionment of that resource with the height or volume of the cylinder representing the amount of the resource. Sections 302a-310a indicate the used or consumed portions of each cylinder while sections 302b-310b illustrate the unused or unconsumed portions of the apportionment. Cylinder 312 indicates the unallocated portions of the resource. As a result, the division of the cylinders represents the amount of resources currently consumed and unconsumed." (rendering a display wherein the display provides a first visual indicator for networking addresses having a first value of a first attribute ("allocated"), wherein a second visual indicator having a second value of the first attribute, and accessing definitional information, the definitional information defining one or more attributes). Additionally, the reference also teaches in col. 4, line 34-37, "The mechanism provides an interface in which a single intuitive control can be simultaneously used for displaying status information about the resource and for modifying allocations and apportionments in the resource." The reference also teaches in col. 7, lines 17-20 and Figs 6A and 6B, "An alternative form, is for example, without limitation, a series of stacked boxes, square in

cross-section, rather than cylinders. The boxes could be subdivided vertically to show the consumed/unconsumed portions of each. However, there is really no need for the representation to appear as if it were three dimensional. Two dimensional rectangles would work just as well, with the area of the rectangle representing the total resource. Also note that the division of each cylinder into only two areas (consumed, unconsumed) in the example could be generalized into a greater number of subdivisions. For example, using the logical disk storage example, the divisions might be "consumed", "unconsumed", and "reserved". (Note: These teaching are applied concepts and are of paramount importance for one having ordinary skill in the art.)

Therefore, it would have been obvious to one having ordinary skill in the art at the time of invention was made to enhance the Wilkes's mechanism by adding the teachings of Johnson such that not only the desired address space is displayed but, also its attributes such as "consumed", "unconsumed", and "reserved" be also displayed.

This would have been obvious because not only it provides an improved mechanism for visualizing an address space but, it further enhances the mechanism of Wilkes by providing for displaying controls in a graphical user interface to display and control resource allocation by a data processing system as taught by Johnson.

Referring to claim 42,

The reference Wilkes teaches the computer-implemented method of claim 40, wherein the networking addresses are Internet Protocol addresses. (Fig. 2A).

Claim Rejections - 35 USC § 102

8. The following is a quotation of the appropriate paragraphs of 35U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

9. Claims 37- 41 are rejected under 35 U.S.C. 102(e) as being anticipated by Wilkes (US 2004/0070632 A1)

Referring to claim 37,

The reference Wilkes teaches a computer-implemented method of illustrating networking address structure, comprising:

accessing definitional information of a set of the networking addresses, the definitional information defining at least one parent network and at least one subordinate network of the parent network for the networking addresses of the set (page 2, para. [0028], "In the depicted example, servers 104, 114 are connected to network 102. Server 104 provides access to storage unit 106" ", Fig. 4C); and

rendering a display of the at least one parent network and at least one subordinate network of the parent network, wherein the display is a tree illustrating a hierarchical structure of the parent and subordinate networks. (Fig. 4C)

Referring to claim 38,

The reference Wilkes teaches the computer-implemented method of claim 37, wherein the tree lists a name assigned to each of the parent and subordinate networks

of the hierarchical structure according to the definitional information. (Fig. 4C)

Referring to claim 39,

The reference Wilkes teaches the computer-implemented method of claim 37, wherein the tree provides an indicator of the type of networking addresses used for the parent and subordinate networks according to the definitional information. (Fig. 4C)

Referring to claim 40,

The reference Wilkes teaches the computer-implemented method of claim 37, wherein the tree provides an indicator of whether the subordinate networks are aggregated with the parent network according to the definitional information. (Fig. 4C)

Referring to claim 41,

The reference Wilkes teaches the computer-implemented method of claim 37, wherein the tree further provides selections for expanding and collapsing the display of the subordinate networks of a parent (page 4, para. [0052],"Window 420 may include an interface that allows a user to manipulate the wheel to zoom in or out, rotate the wheel, or move the wheel. More simply, window 420 may include an interface that allows a user to select an entity on the wheel. For example, the user may select an entity by placing a mouse cursor over an icon and selecting the icon with a mouse click. Alternatively, the user may enter an address value in a text field. Window 420 also includes "UP" button 424, which allows a user to navigate to the address space cylinder level.")

Conclusion

Examiner's note: Examiner has cited particular columns and line numbers in the

references as applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ashok B. Patel whose telephone number is (571) 272-3972. The examiner can normally be reached on 8:00am-5:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John A Follansbee can be reached on (571) 272-3964. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

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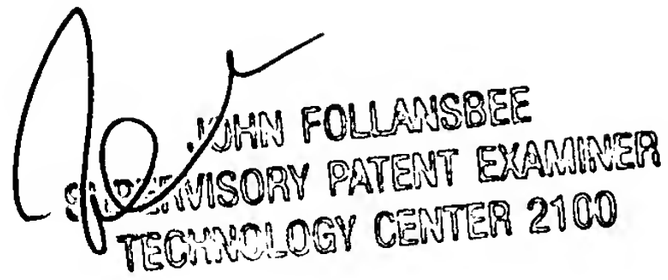
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